

Carpenter Ants

Wood dust and honeycombed wood

Name and Description—*Camponotus* spp. [Hymenoptera: Formicidae]

Carpenter ants tunnel into the wood of stumps, logs, dead standing trees, the dead interior of living trees, and wooden portions of buildings. They do not eat wood; rather, they excavate cavities in decayed wood for nests to raise their young. Adult carpenter ants are this Region's largest ants at 1/4-1/2 inch (6-13 mm) long and they can be black or black and red ants (fig. 1). Adults have elbowed antennae and a constricted waist. Larvae are small, white, legless grubs (fig. 2).

Hosts—Dead and decaying wood of all tree species

Life Cycle—The queen carpenter ant works alone in founding the colony and lays eggs that develop into the first worker ants in about 30-40 days. Worker ants (infertile females) carry food (insects, honeydew, etc.) into the colony for the developing larvae. The queen continues to lay eggs, and colonies can become quite large. Completely developed and fertile queen females are produced spring to midsummer and can be seen flying in swarms. Winged males are also produced at this time and they mate with the queens. Queens then disperse and establish a new colony. Queens shed their wings shortly after finding a suitable site for beginning a colony.

Damage—Carpenter ant damage to forest trees is usually very minor. In some cases, carpenter ant excavations can be so extensive that they can cause a loss of structural integrity in the tree and lead to wind breakage. Carpenter ants sometimes damage young conifers by gnawing around the root collars. The most obvious sign of a carpenter ant colony is the large amount of sawdust-like borings piled on the ground beneath entrance holes (fig. 3). The galleries are also distinctive with their vertical, honeycomb appearance and smooth walls that are free of boring dust (fig. 4). These might be confused with termite activity, but termites do not typically occur at elevations higher than the pinyon-juniper woodlands in the forests of the Rocky Mountain Region, and fecal pellets from termites are distinctively different from carpenter ant boring dust.



Figure 1. Carpenter ant adult, *Camponotus* sp.
Photo: Edward H. Holsten, USDA Forest Service, Bugwood.org.



Figure 2. Carpenter ant larvae, *Camponotus* sp.
Photo: Whitney Cranshaw, Colorado State University, Bugwood.org.



Figure 3. Sawdust-like borings from carpenter ants.
Photo: Dave Powell, USDA Forest Service, Bugwood.org.

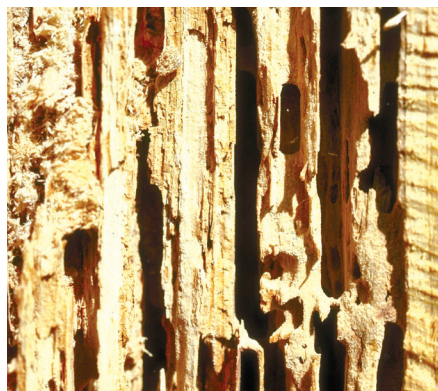


Figure 4. Carpenter ant damage. Photo: Edward R. Werner, USDA Forest Service, Bugwood.org.

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Management—Carpenter ants play important, beneficial roles in that they contribute to decomposition of woody debris by excavating decayed wood, prey on small insects, and serve as food sources for wildlife species. Management in the forest is seldom needed, but removing and processing wood quickly is the best way to prevent damage. Because carpenter ant excavations lead to a loss in structural integrity, trees should be treated as falling hazards. In rare cases, carpenter ants will infest wooden structures, and control in these situations can be difficult.

1. Cranshaw, W.S.; Leatherman, D.A.; Jacobi, W.R.; Mannix L. 2000. Insects and diseases of woody plants of the central Rockies. Bulletin 506A. Fort Collins, CO: Colorado State University, Cooperative Extension. 284 p.
2. Furniss, R.L.; Carolin, V.M. 1977. Western forest insects. Misc. Publ. 1339. Washington, DC: U.S. Department of Agriculture, Forest Service. 654 p.

